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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,664	02/19/2002	Katsuhiko Tsunehara	ASAM.0040	1722

7590

09/20/2004

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EXAMINER

APPIAH, CHARLES NANA

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/076,664

Applicant(s)

TSUNEHARA ET AL.

Examiner

Charles Appiah

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 11 is/are rejected.
- 7) ☒ Claim(s) 2-10 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2, 4</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 02/19/02 and 01/07/04 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements have been considered by the examiner and made of record.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

- The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).
4. Claims 1 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by **Bergen (6,097,958)**.

Regarding claims 1 and 11, Bergen discloses equipment and method for calculating a mobile handset position by using a cellular radio wave (see abstract), comprising: a signal receiver for receiving a cellular radio wave to generate a reception signal (exchange of signaling between mobile phone communicating with at least primary BTS and one or more secondary BTSes, col. 2, line 66 to col. 3, line 3), a position calculation information generator for generating position calculation information necessary for position calculation by using the reception signal (feature of BSC informing secondary BTSes what sector to make the time measurements, as well as instructing the primary BTS and the secondary BTSes as to the time at which to take the time measurement ..., col. 3, line 61 to col. 4, line 10), a base station selection unit for selecting base stations available for position calculation according to the position calculation information (inherent feature of BSC 12 determining the three most geometrically well-positioned BTSes available to determine the mobile phone's location, col. 3, lines 30-44), an inherent base station number counter for counting the number of base stations selected by the base station selection unit (it is inherent the BSC 12 keeps a count of the BTSes that are selected in order to provide the best data that can be used to determine the location of the mobile phone, col. 3, lines 30-44), a position calculation method controller for generating according to the number of selected base stations a position calculation control signal to control the position calculation method (BSC 12 informing secondary BTSes what sector to make time measurements, as well as instructing the primary BTS and the secondary BTSes as to the time at which to take the time measurement ..., col. 3, line 61 to col. 4, line 10, STS

15 of BSC 12 constructing and providing measurement schedule, col. 4, line 55 to col. 5, line 26), a position calculation unit for calculating, according to the position calculation method specified by the position calculation method control signal, the mobile handset position from the position calculation information and the information on the base stations selected by the base station selection unit (BSC 12 using the time measurements made by the BTSes P1, S1, S2, S3 and S4 to determine the location of the mobile phone 16 by applying TDOA techniques to the time measurement data, col. 4, lines 11-54), and a position information application unit for using the mobile handset position to provide a user with information (use of tracking data to predict when a mobile phone may require hard handoff, facilitating the determination of network traffic for planning, network expansions and updates, market studies and providing location information to the mobile phone for future data services, such as computerized directions, col. 2, lines 7-17, and col.6, lines 22-57).

Allowable Subject Matter

5. Claims 2-10 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter:

With respect to claims 2 and 12, the most relevant prior art of record such as Bergen (6,097,958) teaches wherein the position calculation unit performs the position calculation based on trilateration when the position calculation control method entered

from the position calculation method controller corresponds to three or more base stations available for position calculation and Tanaka (JP 10271554) discloses the use of a single base station to calculate the position of a mobile station. Neither Bergen nor Tanaka nor any of the cited prior art of record teaches or fairly suggest the feature of when the position calculation method control signal corresponds to two base stations available for position calculation, the position calculation unit performs the position calculation by using a two-station-based position calculation unit, and when the position calculation method control signal corresponds to one base station available for position calculation, the position calculation unit performs the position calculation by using a one-station based position calculation unit in combination with the additional limitations as specifically set forth in claim 2.

Claims 3-9 are allowable based on their being dependent on allowable claim 2.

With respect to claim 10, the most relevant prior art of record such as Bergen (6,097,958) discloses the provision of information to the user of the mobile handset by the position information application unit. Neither Bergen nor any of the prior art of record teach the feature of the position information application unit controlling information to be provided to the user in addition to the mobile handset position according to the number of base stations selected by the base station selection unit in combination with all the specific recited limitations of claim 10.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. McCaughan et al. (GB 2,215, 932) discloses a radio position finding system.

Grilli et al. (6,697,629) discloses a method and apparatus for measuring timing of signals received from multiple base stations for position location determination.

Tsunehara et al. (6,484,034) discloses a position location system for a radio handset.


Papadimitriou et al. (6,385,458) discloses a method for handling location services in a communication network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Appiah whose telephone number is 703 305-4772. The examiner can normally be reached on M-F 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 703 305-4379. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CA
September 17, 2004


CHARLES APPIAH
PRIMARY EXAMINER